

**Internal Revenue Service**  
**memorandum**

CC: LM:HMT:NEW:2:POSTF-152500-01  
LRStLaurent

date: 3/01/02

to: Team Manager, Group [REDACTED]

from: Associate Area Counsel (LMSB)  
New Jersey

subject: [REDACTED] Inc. and Subsidiaries  
EIN: [REDACTED]

**ISSUE**

Whether taxpayer's use of a dual index under the Inventory Price Index Computation method accurately reflects taxable income consistent with its dollar-value last-in, first-out cost-flow assumptions where it elected to value inventory on the earliest acquisitions method.

**SUMMARY OF FACTS**

Taxpayer predominantly wholesales and distributes [REDACTED]. Its federal income tax returns for the years ending April 30, [REDACTED] to [REDACTED] are currently under audit. For its tax year ending April 30, [REDACTED], it elected to value its inventory using last-in, first-out (LIFO) cost-flow assumptions. On its Form 970, Application to Use LIFO Inventory Method, the taxpayer elected to use the dollar-value approach to valuing its inventory. To determine the cost of items in closing inventory, taxpayer elected on the Form 970 to use the earliest acquisition method, costing the goods purchased during the year in the order of acquisition.

In order to derive base-year cost, taxpayer elected to use the index method, specifically the Inventory Price Index Computation (IPIC) Method. Taxpayer classified its inventory into five (5) categories, to wit: [REDACTED]

[REDACTED]. The categories were combined to form one pool. On its Form 970, taxpayer declared July as its representative month for selection of its index.

The Commissioner does not dispute the single pool used by taxpayer. We consequently have neither analyzed nor herein opine on taxpayer's pooling method. The selection of July as a representative month, however, is questioned given the taxpayer's failure to maintain its records consistent with its earliest acquisition election. The revenue agent has determined, moreover,

that the taxpayer employed the use of dual indices. First, contrary to its election, the taxpayer used the March Producer Price Index published by the Bureau of Labor Statistics as a deflator index to derive base year costs for its ending inventory, the first step necessary to determine any increment or decrement (liquidation) in inventory. Second, the July index was then employed to inflate any determined increment to current LIFO value.

### DISCUSSION

Section 471 requires the use of inventories whenever necessary to clearly reflect income. I.R.C. § 471(a). The regulations define "necessary" as being whenever the production, purchase, or sale of merchandise is an income-producing factor. Treas. Reg. § 1.471-1. When inventories are required, they must be maintained on a basis that conforms as nearly as possible to the best accounting practice in the taxpayer's trade or business and that most clearly reflects income. Fox Chevrolet, Inc. v. Commissioner, 76 T.C. 708, 719-722 (1981) (Auto dealership which had elected dollar-value LIFO needed to use two (2) inventory pools, one for new trucks and one for new cars rather than (1) one pool for all new vehicles).

In a merchandising business, gross income from sales means total sales less cost of goods sold (COGS). Treas. Reg. § 1.61-3(a). COGS for the year is determined by subtracting the value of ending inventory from the sum of the values of beginning inventory plus the cost of purchasing or producing goods during the year. See, Primo Pants Co. v. Commissioner, 78 T.C. 705, 723 (1982). As a general rule, taxpayers will want to keep ending inventory as low as possible so that COGS, which is an offset to gross receipts, is maximized, thereby reducing gross income. Hamilton Indus., Inc. & Sub. v. Commissioner, 97 T.C. 120, 129 (1991).

Code section 472 permits taxpayers to value their inventories under the LIFO method. In contrast to the first-in, first-out (FIFO) method of inventory valuation, which treats the first goods produced or bought during the tax period as the first goods sold, the LIFO method of inventory valuation treats the last goods made or acquired as the first goods to be sold. I.R.C. § 472(b). Accordingly, under the LIFO method, the earliest goods acquired are treated as the goods remaining in ending inventory, if any. Id. During a period of rising costs, the use of the LIFO method generally results in lower taxes because ending inventory, assumed to be of earlier and hence lower-costing items, will be valued lower, and therefore COGS will be higher, comparatively, to a FIFO method. Amity Leather Prods. Co. v. Commissioner, 82 T.C. 726, 731-732 (1984). "The theory behind LIFO is that income may be more accurately determined by matching current costs against current

revenues, thereby eliminating from earnings any artificial profits resulting from inflationary increases in inventory costs." Id. at 732.

Two basic approaches are used to compute LIFO inventory values, the specific-goods method and the dollar-value method. The specific goods method requires a physical matching of costs to inventory items at the close of the year; consequently, its usefulness is restricted to inventories which contain a limited number of items.

In contrast, the dollar-value method measures increases or decreases in inventory not as discrete items or quantities but in terms of total dollars. Inventory is grouped into one or more "pools" composed of "items". Treas. Reg. § 1.472-8(a). Using a standardized dollar value, the beginning and ending inventory values are compared to determine whether there has been a change in inventory from the prior year. The standardization is made by relating current costs to what those costs would have been during a base year. Base-year cost is the aggregate cost of all items in the pool at what they cost (or would have cost) as of the beginning of the taxable year for which the LIFO method was first adopted, in this case [REDACTED]. After converting the current year ending inventory from current-year cost to base-year cost, the values of the beginning and ending inventories, in terms of base-year cost, are compared to determine whether an increase or decrease in inventory has occurred. Treas. Reg. §§ 1.472-2 and -8(e)(2)(vi); E.W. Richardson, T.C. Memo. 1996-368, 72 T.C.M. 348, 352 citing 1 Schneider, Federal Income Taxation of Inventories, § 14.01[1], at 14-4, 14-5 (1996).

Treasury regulation § 1.472-8(e)(1) directs that ordinarily, a taxpayer utilizing dollar-value LIFO should double-extend inventory at both base-year and current-year costs. Where double-extension is impractical, the regulations allow use of an index method. An index may be computed by double-extension of a representative portion of the inventory or "by the use of other sound and consistent statistical methods." One such acceptable method is the link-chain method. Both double-extension and link-chain extend ending inventory. While double-extension translates current inventory costs to the fixed base year, link-chain looks to the inventory costs at the end of the current year in relation to the beginning of the year, and then calculates costs back to the base year via a cumulating index. LTR 87-49-005 (Aug. 12, 1987); E.W. Richardson at 353 n.9.

The within taxpayer was supposed to use the index method to compute the base-year cost of the inventory in its LIFO pool after first establishing what its current year ending inventory costs were

under an earliest acquisition assumption. After comparing beginning and ending inventories at base-year costs, if an increase were found, that layer was to be valued using current costs under an earliest acquisition assumption. Instead of using a single index, however, taxpayer employed a dual-index method, using a deflator index to convert to base-year cost, and a second layer-valuation index, an inflator, to value any increment in the pool at current costs.

Taxpayer used the March Producer Price Index to deflate its end of the year inventories from actual end of year invoice costs to what they would be as expressed in base-year dollars (ie. [REDACTED] dollars). Once ending inventory at base-year cost was computed, it was compared to beginning inventory at base-year cost, an amount available from the prior taxable year. The taxpayer asserts that if ending inventory valued at base-year cost exceeded beginning inventory at base-year cost, there would have been an increment in inventory. The current value of such increment was then computed, and the increment added to beginning inventory for the pool to determine the current year's LIFO ending inventory for the pool.

Taxpayer has acted contrary to its election to use earliest acquisition for which July indices would have been appropriate. The use of the March index is inconsistent with its earliest acquisition election since its tax year ends April 30<sup>th</sup>. Prior to its LIFO election, taxpayer had valued its inventory using FIFO. Thus, while using the March index would be inconsistent with an election to use earliest acquisition, its use would be consistent with its former FIFO assumption that the merchandise in inventory was the most recently acquired. In any event, taxpayer used the March index to determine whether any increment or liquidation of inventory occurred without the need for the recordkeeping attendant to earliest acquisition costs. Taxpayer's use of dual indices should be disallowed as contrary to current regulations and not an accurate means to derive taxable income.

In other situations the Service has been advised that termination of a LIFO election in dual index situations does not need to be automatic given the discretionary authority of the Commissioner found in § 472(e)(2) of the Code and the underlying regulations. LTR 87-44-003 (June 30, 1987). For example, a deflator index was used by the taxpayer in LTR 87-49-005 without objection by the Service, prompting the Chief Counsel adviser to specifically note that the propriety of the deflator had not been raised as an issue by the Service. Taxpayer therein used dollar-value LIFO on a link-chain basis.

In that case, taxpayer had computed LIFO value of its inventory by initially computing a deflator index. The deflator index converted current year costs to base year figures. The deflator was calculated by double extending ending inventory at closing standard costs and at beginning of the year standard costs. End of year quantities were determined pursuant to a physical inventory. The standard costs were revised yearly to reflect year-end actual costs. A comparison of the two double extension totals resulted in a price index for the year. This annual index was then multiplied by the prior year's cumulative index to obtain the new year-end cumulative deflator index. The new cumulative index was divided into ending inventory at actual closing cost which resulted in a determination of the closing inventory at base-year cost. To the extent the current year's closing inventory at base-year cost differed from the prior year's closing inventory at base-year cost, an increment or liquidation was revealed. A second calculated index was applied to the increment to establish its current value.

The question presented in LTR 87-49-005 was whether the taxpayer could calculate its incremental index by reference to the mix and quantity of items purchased and produced for a period of time during the year, or must it calculate its incremental index by reference to the mix and quantity of items in ending inventory. The deflator index was not challenged. The regulations directed that only consideration of the entire ending inventory would accurately reflect a taxpayer's ending inventory costs and thereby clearly reflect income. Since the taxpayer had not considered the entire ending inventory when establishing its incremental index, only using the quantity and mix of items purchased or produced during a portion of the year, the Service found the index did not accurately reflect inventory.

In an earlier private letter ruling, a subsidiary corporation was also found to have used a dual index method. A deflator index was calculated yearly, and multiplied by the prior year's cumulative index to arrive at an updated deflator which would approximate cumulative inflation since the base year. By dividing ending inventory by the cumulative deflator, the taxpayer approximated the value of ending inventory at base-year dollars. Then, an incremental index was used to value the inventory increment. In that letter ruling, it was noted and passed-on that the subsidiary's internally calculated indexes were appropriate, accurate, and reliable for itself but not for its parent corporation who was the actual taxpayer at issue.

In the case of E.W. Richardson, a deflator was again used as part of that taxpayer's link-chain, dual-index method. The taxpayer therein calculated an annual and cumulative deflator to convert

ending inventory at actual cost per invoices to what it would be at base-year cost. The annual deflator was calculated by dividing ending inventory at actual cost by its value at beginning of the year cost. The resulting current year annual deflator index was then multiplied by the annual deflator index from all prior years to arrive at a cumulative deflator. The ending inventory expressed at actual cost was then divided by the cumulative deflator to derive ending inventory at base-year cost. The Tax Court in E.W. Richardson did not find fault with the use of the deflator, although the use of the deflator had not been challenged by the Service. On the other hand, the Court found that when the taxpayer had begun defining its items of inventory for its LIFO pool by car model, rather than its past use of car body size, it had changed the treatment of a material item and thereby effected an unauthorized change in its method of accounting.

E.W. Richardson and the two cited private letter rulings, 87-44-003 and 87-49-005, demonstrate a recognition by the Court and Service that taxpayers employ a variety of statistical methods to try to accomplish the double-extension contemplated by the regulations. In these instances, however, the deflator index was a self-calculated index generated by comparing actual end of year inventory costs to beginning of year inventory costs. This annual index was then linked to the cumulative index to derive the deflator necessary to convert current costs to base-year dollars. The taxpayers in these instances used dual indexing in conjunction with link-chain methodologies which, by the nature of link-chain, required recordkeeping of ending inventory costs to calculate the initial annual index. While dual indices is inappropriate, their inventory methodologies were found deficient for other reasons.

A taxpayer not using the retail method of inventory valuation must select a month or months most appropriate to its method of determining current year costs or make a one-time binding election of a representative month. A representative month is one bearing a nexus between it and the taxpayer's method of determining current-year costs. Under the framework of the regulations, current year cost of ending inventory was to be determined either by most recent purchases, earliest acquisitions, average unit costs, or any other proper method which clearly reflected income in the opinion of the Commissioner. Treas. Reg. § 1.472-8(e)(2)(ii)(a)-(d). For instance, as here, an earliest acquisition assumption would normally be reflected by July invoices.

We are informed by the revenue agent that the within taxpayer did not maintain records of its earliest acquired inventory. Such failure would normally prevent the Service from verifying the accuracy, reliability, and suitability of the use of a deflator

) index. Treas. Reg. § 1.472-8(e)(1). It needs to be emphasized that the taxpayer **elected** the earliest acquisition method. In so electing, there was a concomitant recordkeeping requirement.

A failure to maintain adequate books and records with respect to a taxpayer's LIFO inventory and all supporting computations may warrant the termination of a LIFO election. Because dollars, not units, are used to measure increases or decreases in inventory quantities, it is critical that ending inventory be accurately expressed in terms of base-year dollars. If a taxpayer chooses to use an index method in lieu of double extending the entire year-end inventory at base-year prices then the Service must be able to verify the accuracy of the taxpayer's indexes to ensure that the year-end inventory is properly expressed in terms of base-year dollars. Treas. Reg. §§ 1.472-2(h), -8(d) and (e). If a taxpayer is unable to furnish adequate books and records so that the examining agent is able to verify the LIFO calculations and compliance with § 472 and its regulations, then in accordance with Rev. Proc. 79-23, 1979-1 C.B. 564, the LIFO election may be terminated.

Rather than maintain appropriate records and calculate an index, taxpayer utilized published indices, but taxpayer's use of two indices is inconsistent with the IPIC method's concept of an appropriate month. This taxpayer has not determined its ending inventory consistent with its earliest acquisition election. Despite this, use of the March index from BLS is an acceptable means to convert current costs to base-year dollars for determining whether an inventory increment has occurred.

Taxpayer may also argue that since it is employing BLS indexes, verification by records is unnecessary. The regulations themselves state, "[T]he use of [an] inventory price index to compute the LIFO value of a dollar-value inventory pool will be accepted as accurate, reliable, and suitable." Treas. Reg. § 1.472-8(e)(3).

In summary, taxpayer failed to maintain its records supporting its earliest acquisitions election, but it did retain its current, most recent invoice records consistent with its historical FIFO method. While taxpayer has failed to keep its records in accordance with its election, it is the flawed use of IPIC to derive two indices that warrants LIFO disallowance. An index under IPIC is an acceptable manner to derive base-year costs; however, use of a second index to value any inventory increment layer contravenes the regulation.

The use of dual indices under IPIC has directly been commented upon by the Service with the recent promulgation of regulation

changes to the IPIC method of LIFO inventory valuation. Treasury Directive 8976, effective for tax years ending on or after December 31, 2001, specifically disallows the use of dual indices under IPIC. The need to select two months for deflator and increment indices, raises the complexity and simultaneously decreases the accuracy of the method. "The IPIC method was neither intended nor designed to serve as a surrogate for determining the earliest acquisitions cost of items in a dollar-value pool." T.D. 8976.

The Treasury Directive explicitly makes plain that a dual index is impermissible. This is not a change in the Service's position. According to the Service's Technical Advisor on Inventory, it has been the position of the Service, as expressed in the regulations since 1993, that dual indexing is an inappropriate method for determining current inventory under an earliest acquisitions election. In fact, two issue papers have been written, both explaining that a dual index is inappropriate. The earlier paper was issued in 1995, and the latter proposed paper of 1998 directly concluded dual indices improper. See, "Dollar-Value LIFO, Earliest Acquisition Method," Industry Specialization Program, Coordinated Issue, dated December 6, 1995, ISP-MSSP, IRPO ¶ 80,287 CCH, and "Dollar-Value LIFO Link-Chain, Dual Index Method," Industry Specialization Program, Proposed Coordinated Issue, dated November, 1998.

#### CONCLUSION

Based upon the above, we have concluded that taxpayer's dual index method of inventory valuation does not clearly reflect income. Taxpayer inappropriately applied IPIC to determine its current inventory value. Taxpayer ignored its earliest acquisition election regarding ending inventory and failed to maintain records consistent therewith. Rather, taxpayer used an inflator index to derive current costs of its determined inventory increment after first determining said increment using a deflator index. The use of dual indices in this manner, particularly the inflator, directly contravenes the IPIC inventory method.



If you have any questions, please contact attorney Leon St. Laurent at (973) 645-3594.

**This writing may contain privileged information. Any unauthorized disclosure of this writing may have an adverse effect on privileges, such as the attorney client privilege. If disclosure becomes necessary, please contact this office for our views.**

---

JULIA A. CANNAROZZI  
Associate Area Counsel